



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,854	09/22/2003	Hoscei Matsuoka	243051US90	4307
22850	7590	06/27/2007	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.			DAVENPORT, MON CHERI S	
1940 DUKE STREET			ART UNIT	PAPER NUMBER
ALEXANDRIA, VA 22314			2616	
NOTIFICATION DATE		DELIVERY MODE		
06/27/2007		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)
	10/664,854	MATSUOKA ET AL.
	Examiner	Art Unit
	Mon Cheri S. Davenport	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-22 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 9/22/2003 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892) ✓
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08) ✓
Paper No(s)/Mail Date See Continuation Sheet.

- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

Continuation of Attachment(s) 3, Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :3/02/2005, 10/02/2006, and 3/12/2007.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 19-22 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 19- 22, claims 19-22 lacks the proper preamble language for statutory computer program product. See MPEP 2100 for guidance on computer related inventions.

The examiner suggest a preamble as follows:

“ A computer readable medium containing computer executable instructions to perform a method, the method comprising:”

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-6, 8-9, and 11-22** rejected under 35 U.S.C. 102(b) as being anticipated by Famolari et al. (US Patent Application Publication 2002/0105926).

Regarding **Claim 1** Famolari et al. discloses a packet communication terminal for packet communication comprising:

network address acquiring means for acquiring a network address of the packet communication terminal from a network to which the packet communication terminal can be connected(*see paragraph[0047], lines 4-8, mobile terminal establishes an initial connection between itself and the IP network;*)

network address storing means(*see figure 2, section 14, terminal multicast group, see paragraph [0044], lines 4-6*) for storing the network address acquired by the network address acquiring means(*see paragraph[0047], lines 4-8, mobile terminal establishes an initial connection between itself and the IP network, when connection is established address is stored*);

network address notifying means for notifying a correspondent packet communication terminal of the network address stored in the network address storing means(*see paragraph [0047] lines 12-17, the IP network interfaces become participants in the mobile terminal multicast group when the mobile terminal broadcast a "join" message*); and

first packet receiving means for receiving a packet sent from the correspondent packet communication terminal to the network address(*see paragraph [0048] lines 1-3, determine if the mobile wireless terminal wants to transmit information to the mobile terminal, mobile terminal is capable of receiving packets*);

wherein when there exist a plurality of networks to which the packet communication terminal can be connected, the network address acquiring means acquires a plurality of said network addresses from the respective networks(*see paragraph[0047], lines 8-11, the mobile terminal establishes a plurality of IP network connections*);

wherein the network address storing means(*see figure 2, section 14, terminal multicast group, see paragraph [0044], lines 4-6*) stores the plurality of network addresses(*see paragraph [0047], lines 12-16, these IP network interfaces become participants in the mobile terminal multicast group, the addresses are stored*)

wherein the network address notifying means notifies the correspondent packet communication terminal of the plurality of network addresses (*see paragraph [0047], lines 12-16, the mobile terminal broadcast a "join" message to the multicast group, notifying*) ; and

wherein the first packet receiving means(*see figure 4, section 40, mobile terminal receives packets*) receives packets generated from identical data and sent from the correspondent packet communication terminal to the respective network addresses (*see paragraph [0048], lines 7-11, the wireless IP backbone network transmits information to the mobile terminal by broadcasting the information as a multicast message to the mobile terminals*).

Regarding **Claim 2** Famolari et al. discloses everything as applied above (*see claim 1*). In addition the packet communication terminal includes:

ineffective network address notifying means for notifying the correspondent packet communication terminal of the network address acquired by the network address acquiring means from the network to which the packet communication terminal is no longer able to stay connected, and information that said network address is made ineffective (*see paragraph [0020], lines 11-14, information error by allowing information comparison and channel strength evaluation in order to drop weak IP network connections, therefore network is notified of ineffective network addresses*).

Regarding **Claim 3** Famolari et al. discloses everything as applied above (*see claim 1*). In addition the packet communication terminal includes:

radio wave intensity measuring means for, when a plurality of said network addresses are stored in the network address storing means, measuring intensities of radio waves from the respective networks from which the respective network addresses were acquired (*see paragraph [0020], lines 11-14, information error by allowing information comparison and channel strength(radio wave intensity) evaluation in order to drop weak IP network connections, this network measures the channel strength which is radio wave intensity*); and

effective network address notifying means for, when a maximum intensity out of the intensities measured by the radio wave intensity measuring means is not less than a first predetermined threshold (*see paragraph [0028], lines 3-7, pilot signal is used by the mobile terminal to gauge the signal strength of a particular communication channel to determine if channel is sufficient to establish connection*) (*see paragraph [0030], lines 4-8, if the pilot signal strength is greater than the candidate signal threshold, then place in candidate set, otherwise place in unsatisfactory set*), notifying the correspondent packet communication terminal of the network address acquired by the network address acquiring means from the network having transmitted the radio wave of the maximum intensity, and information that a communication state with said network is good (*see paragraph [0020], mobile terminal determines whether to terminate or establish multicast network connection using factors as error rate, channel signal strength, network IP constraints, network is notified of these factors*).

Regarding **Claim 4** Famolari et al. discloses everything as applied above (*see claim 3*). In addition the packet communication terminal includes:

further comprising communication state notifying means for, when all the intensities of the radio waves from the plurality of networks measured by the radio wave intensity measuring means are smaller than a second predetermined threshold, notifying the correspondent packet communication terminal of information that there is no network from that the packet communication terminal can receive a radio wave of not less than the second predetermined threshold (*see paragraph [0028], lines 3-7, pilot signal is used by the mobile terminal to gauge the signal strength of a particular communication channel to determine if channel is sufficient to establish connection*) (*see paragraph [0030], lines 4-8, if the pilot signal strength is greater than the candidate signal threshold, the place in candidate set, otherwise place in unsatisfactory set, network is notified*).

Regarding **Claim 5** Famolari et al. disclose a packet communication terminal for packet communication comprising:

network address acquiring means for acquiring a network address of the packet communication terminal from a network to which the packet communication terminal can be connected(*see paragraph [0047], lines 4-8, mobile terminal establishes an initial connection between itself and the IP network*);

network address storing means(*see figure 2, section 14, terminal multicast group, see paragraph [0044], lines 4-6*) for storing the network address acquired by the network address acquiring means(*see paragraph [0047], lines 4-8, mobile terminal establishes an initial connection between itself and the IP network, when connection is established address is stored*);

network address notifying means for notifying a correspondent packet communication terminal of the network address stored in the network address storing means(*see paragraph [0047] lines 12-17, the IP network interfaces become participants in the mobile terminal multicast group when the mobile terminal broadcast a "join" message*);;

first packet generating means for generating a packet from data to be transmitted to the correspondent packet communication terminal (*see paragraph [0007], base stations synchronously transmit identical information that has been modulated using identical modulation symbols*) ; and

first packet transmitting means for providing the packet with the network address stored in the network address storing means and for transmitting the packet to the correspondent packet communication terminal(*see paragraph [0007], base stations synchronously transmit identical information that has been modulated using identical modulation symbols*,);

wherein when there exist a plurality of networks to which the packet communication terminal can be connected, the network address acquiring means acquires a plurality of said network addresses from the respective networks(*see paragraph [0047], lines 8-11, the mobile terminal establishes a plurality of IP network connections*) ;

wherein the network address storing means stores the plurality of network addresses; wherein the network address notifying means notifies the correspondent packet communication terminal of the plurality of network addresses(*see paragraph [0047], lines 12-16, these IP network interfaces become participants in the mobile terminal multicast group, the addresses are stored*); and

wherein when a plurality of said network addresses are stored in the network address storing means, the first packet transmitting means provides said packets generated from identical data by the first packet generating means, with the network addresses acquired from the respective networks and transmits the packets to the respective networks(*see paragraph [0048], lines 7-11, the wireless IP backbone*

network transmits information to the mobile terminal by broadcasting the information as a multicast message to the mobile terminals).

Regarding **Claim 6** Famolari et al. discloses everything as applied above (see *claim 5*). In addition the packet communication terminal includes:

wherein when a plurality of said network addresses are stored in the network address storing means, said packets transmitted to the respective networks by the first packet transmitting means are packets identical to each other (*see paragraph [0005], lines 7-11, the mobile terminal must also synchronously transmit information modulated with identical symbols to the plurality of base stations received from the mobile terminal*).

Regarding **Claim 8** Famolari et al. discloses a packet communication terminal for packet communication comprising:

destination network address storing means for storing a network address notified of by a correspondent packet communication terminal, as a destination network address (*see paragraph [0047], lines 4-8, mobile terminal establishes an initial connection between itself and the IP network, the destination is stored when connection established*);

second packet generating means for generating a packet from data to be transmitted to the correspondent packet communication terminal (*see paragraph [0007], base stations synchronously transmit identical information that has been modulated using identical modulation symbols*); and

second packet transmitting means for transmitting the packet to the correspondent packet communication terminal (*see paragraph [0007], base stations synchronously transmit identical information that has been modulated using identical modulation symbols*);

wherein when a plurality of said network addresses are notified of by the correspondent packet communication terminal, the destination network address storing means stores a plurality of said destination network addresses corresponding to the plurality of network addresses (*see paragraph [0047], lines 12-16, these IP network interfaces become participants in the mobile terminal multicast group, the addresses are stored*); and

wherein when a plurality of said destination network addresses are stored in the destination network address storing means (*see figure 2, section 14, terminal multicast group, see paragraph [0044], lines 4-6*), the second packet transmitting means transmits said packets generated from identical data, to the respective destination network addresses (*see paragraph [0048], lines 7-11, the wireless IP backbone network transmits information to the mobile terminal by broadcasting the information as a multicast message (identical data) to the mobile terminals*).

Regarding **Claim 9** Famolari et al. discloses everything as applied above (see *claim 8*). In addition the packet communication terminal includes:

wherein when a plurality of said destination network addresses are stored in the destination network address storing means, said packets transmitted to the plurality of network addresses by the second packet transmitting means are packets identical to each other (*see paragraph [0048], lines 7-11, the wireless IP backbone network transmits information to the mobile terminal by broadcasting the information as a multicast message (identical data) to the mobile terminals*).

Regarding **Claim 11** Famolari et al. discloses everything as applied above (see *claim 8*). In addition the packet communication terminal includes:

wherein, based on the network address notified of by the correspondent packet communication terminal, and information that said network address is made ineffective, the destination network address storing means makes ineffective the destination network address corresponding to said network address (*see paragraph [0020], lines 11-14, information error by allowing information comparison and channel strength evaluation in order to drop weak IP network connections, therefore network is notified of ineffective network addresses*).

Regarding **Claim 12** Famolari et al. discloses everything as applied above (see *claim 8*). In addition the packet communication terminal includes:

wherein when a plurality of said destination addresses are stored in the destination address storing means, based on the network address notified of by the correspondent packet communication terminal, and information that a communication state with the network from which said network address was acquired is good, the second packet transmitting means transmits said packets to the destination network address stored corresponding to the network address in the destination network address storing means (*see paragraph [0020], mobile terminal determines whether to terminate or establish multicast network connection using factors as error rate, channel signal strength, network IP constraints, network is notified of these factors*).

Regarding **Claim 13** Famolari et al. discloses everything as applied above (see *claim 12*). In addition the packet communication terminal includes:

wherein, based on information that there is no network from that the correspondent packet communication terminal can receive a radio wave of not less than a second predetermined threshold, notified of by the correspondent packet communication terminal, the second packet transmitting means transmits said packets to the respective destination network addresses stored in the destination network address storing means (*see paragraph [0028], lines 3-7, pilot signal is used by the mobile terminal to gauge the signal strength of a particular communication channel to determine if channel is sufficient to establish connection*) (*see paragraph [0030], lines 4-8, if the pilot signal strength is greater than the candidate signal threshold, the place in candidate set, otherwise place in unsatisfactory set, network is notified*)

Regarding **Claim 14** Famolari et al. discloses a packet communication terminal for packet communication comprising:

destination network address storing means for storing a network address(*see figure 2, section 14, terminal multicast group, see paragraph [0044], lines 4-6*) notified of by a correspondent packet communication terminal, as a destination network address(*see paragraph[0047], lines 4-8, mobile terminal establishes an initial connection between itself and the IP network, the destination is stored when connection established*); and

second packet receiving means(*see figure 4, section 40, mobile terminal receives packets*) for receiving a packet transmitted from the correspondent packet communication terminal(*see paragraph [0048] lines 1-3, determine if the mobile wireless terminal wants to transmit information to the mobile terminal, mobile terminal is cable of receiving packets*);

wherein when a plurality of said network addresses are notified of by the correspondent packet communication terminal, the destination network address storing means stores a plurality of said destination network addresses corresponding to the respective network addresses(*see paragraph[0047], lines 8-11, the mobile terminal establishes a plurality of IP network connections*); and

wherein the second packet receiving means receives a packet transmitted from the correspondent packet communication terminal, provided with one of the plurality of destination network addresses, and generated from identical data(*see paragraph [0048], lines 7-11, the wireless IP backbone network transmits information to the mobile terminal by broadcasting the information as a multicast message(identical data) to the mobile terminals.*

Regarding **Claims 15-22** Famolari et al. discloses a packet communication system for packet communication between a first packet communication terminal and a second packet communication terminal,

wherein the first packet communication terminal comprises:

network address acquiring means for acquiring a network address of the packet communication terminal from a network to which the first packet communication terminal can be connected(*see paragraph[0047], lines 4-8, mobile terminal establishes an initial connection between itself and the IP network*);

network address storing means(*see figure 2, section 14, terminal multicast group, see paragraph [0044], lines 4-6*) for storing the network address acquired by the network address acquiring means(*see paragraph [0047], lines 12-16, these IP network interfaces become participants in the mobile terminal multicast group, the addresses are stored*);

network address notifying means for notifying the second packet communication terminal of the network address stored in the network address storing means; and first

packet receiving means for receiving a packet sent from the second packet communication terminal to the network address(*see paragraph [0048], lines 7-11, the wireless IP backbone network transmits information to the mobile terminal by broadcasting the information as a multicast message to the mobile terminals*);

wherein the second packet communication terminal comprises:

destination network address storing means for storing the network address notified of by the first packet communication terminal, as a destination network address(*see paragraph [0047], lines 4-8, mobile terminal establishes an initial connection between itself and the IP network, the destination is stored when connection established*);

second packet generating means for generating a packet from data to be transmitted to the first packet communication terminal(*see paragraph [0007], base stations synchronously transmit identical information that has been modulated using identical modulation symbols*); and

second packet transmitting means for transmitting the packet to the first packet communication terminal(*see paragraph [0007], base stations synchronously transmit identical information that has been modulated using identical modulation symbols*,);

wherein when there exist a plurality of networks to which the first packet communication terminal can be connected, the network address acquiring means of the first packet communication terminal acquires a plurality of said network addresses from the respective networks(*see paragraph [0047], lines 12-16, these IP network interfaces become participants in the mobile terminal multicast group, the addresses are stored*);

wherein the network address storing means of the first packet communication terminal stores the plurality of network addresses(*see paragraph [0048], lines 7-11, the wireless IP backbone network transmits information to the mobile terminal by broadcasting the information as a multicast message (identical data) to the mobile terminals*);

wherein the network address notifying means of the first packet communication terminal notifies the second packet communication terminal of the plurality of network addresses(*see paragraph [0047], lines 12-16, these IP network interfaces become participants in the mobile terminal multicast group, the addresses are stored and notified*);

wherein when a plurality of said network addresses are notified of by the first packet communication terminal, the destination network address storing means of the second packet communication terminal stores a plurality of said destination network addresses corresponding to the plurality of network addresses(*see paragraph [0047], lines 12-16, these IP network interfaces become participants in the mobile terminal multicast group, the addresses are stored, and notified*);

wherein when a plurality of said destination network addresses are stored in the destination network address storing means, the second packet transmitting means of the second packet communication terminal transmits said packets generated from identical data, to the respective destination network addresses (*see paragraph [0048], lines 7-11, the wireless IP backbone network transmits information to the mobile terminal by broadcasting the information as a multicast message (identical information) to the mobile terminals*); and

wherein the first packet receiving means (*see figure 4, section 40, mobile terminal receives packets*) of the first packet communication terminal receives the packets generated from the identical data and transmitted from the second packet communication terminal to the respective network addresses (*see paragraph [0048], lines 7-11, the wireless IP backbone network transmits information to the mobile terminal by broadcasting the information as a multicast message (identical information) to the mobile terminals, all terminal in group get the message*).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 7 and 10** rejected under 35 U.S.C. 103(a) as being unpatentable over Famolari et al. in view of Cannon et al. (US Patent Number 6,067,444).

Regarding **Claim 7 and 10** Famolari et al. discloses everything as applied above (*see claims 5 and 9*). In addition the packet communication terminal includes:

However Famolari et al. fails to specifically point out first redundant packet generating means for generating redundant packets by forward error correction codes from data part of said packets generated by the first packet generating means,

wherein the first packet transmitting means distributes and transmits the packets generated by the first packet generating means and the redundant packets generated by the first redundant packet generating means, to the networks in such a manner that even in a case where the packet communication terminal is no longer able to stay connected to any one of the plurality of networks, the correspondent packet communication terminal

can receive different packets in the number equal to or greater than the number of packets generated by the first packet generating means as claimed.

Cannon et al. discloses first redundant packet generating means for generating redundant packets by forward error correction codes from data part of said packets generated by the first packet generating means (*see col. 1, lines 22-26, when messages are sent in a unreliable radio frequency environment, error characters are received. most errors are corrected using forward error correction*),

wherein the first packet transmitting means distributes and transmits the packets generated by the first packet generating means and the redundant packets generated by the first redundant packet generating means, to the networks in such a manner that even in a case where the packet communication terminal is no longer able to stay connected to any one of the plurality of networks, the correspondent packet communication terminal can receive different packets in the number equal to or greater than the number of packets generated by the first packet generating means (*see col. 1, lines 31-39, detected errors are handled in duplicate messages processing, entire message shows up as a new message (different packet in the number equal to or greater than originally generated)*).

Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Famolari et al. network with forward error correction because handling subsequent errors with duplicate messages will minimize the burden on the user (see Cannon et al. col. 2, lines 1-3).

Citation of Pertinent Prior Art

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tajika et al. (US Patent Number 6,118,771) see abstract.

Daizo (US Patent Number 6,424,654) see abstract.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mon Cheri S. Davenport whose telephone number is 571-270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MD/md
June 18, 2007



Seema S. Rao
SEEMA S. RAO 6/19/07
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600